The dimensions of the three species are as follows:—

	Total				
	length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
P. angolensis	. 7.4	1.0	4.4	1.5	1:3
P. longipennis	. 7.8	1.1	53	1.7	1.6
P. reichenowi	. 7:3	0:05	4.7	1.8	1:35

The specimen of *P. longipennis* here considered is that procured by Mr. J. ffolliott Darling, near Salisbury, in Rhodesia (cf. Sharpe, Bull. B. O. C. xii. p. 49). The type-specimen in Berlin was obtained in Northern Nyasaland.

EXPLANATION OF PLATE IV.

- Fig. 1. Pitta reichenowi, from the typical specimen.
 - 2. Pitta longipennis, from the specimen procured by Mr. J. ffolliott Darling, near Salisbury, in Rhodesia.

Both the figures are reduced to 3 ths of the natural size.

IX.—On the Silver-Pheasants of Burma. By Eugene W. Oates, F.Z.S.

When I wrote the first part of the 'Manual of the Game-Birds of India' in 1898, the material for dealing with the Silver-Pheasants was very scanty. Now, owing to the assistance of numerous kind friends, whose names will be found in the following notes, the number of specimens of these Pheasants in the Natural History Museum has been much augmented and some rare forms have been acquired. I wish, therefore, to revise my account of the Burmese species and to correct some mistakes into which I have fallen.

The old notion that these birds interbreed in a wild state and produce a confusion of forms must now be abandoned. There is nothing to support this view. The larger the series of these Pheasants becomes, the more clearly and distinctly does it appear that they are well-defined species, bearing no particular resemblance to any other Pheasants the range of which they overlap.

There is a point about these Pheasants which is very

interesting. Where the males of two species are superficially alike and might be confounded, as in G. sharpii and G. rufipes, we find that the females are totally different. Again, where the females of two species are so alike as to be barely distinguishable from each other, as in G. sharpii and G. lineatus, we find that the males are wide apart. The same holds good with the four Himalayan species, viz., G. albicristatus, G. leucomelanus, G. melanonotus, and G. horsfieldi, in which the males can be recognised at a glance, but the females cannot be separated with any certainty.

Many persons examining the males of G. nycthemerus and my new species, G. jonesi, might refuse to consider them as distinct. The great difference in the females of the two species would, however, speedily convince them to the contrary.

Of the numerous species of Gennæus now recognised, I do not know any two which resemble each other as regards both sexes. Either the males or the females are strikingly different.

I now proceed to give a key to the males of all the Burmese Silver-Pheasants, twelve in number, and a sufficiently detailed account of each species. I do not attempt to give a key to the females, as some of them are not known.

Key to the Males.

a. Legs deep red.

a'. Upper plumage marked throughout with lines parallel to the margins of the feathers, each pair wide apart at the base and meeting on the shaft, forming a spoon-shaped figure.

a''. Ear-coverts and the whole of the sides of the neck heavily pencilled with scale-like marks.

a". Tail up to 12 inches. Either two or three pairs of black lines on each feather of the upper plumage, these being broader than the white interspaces

G. andersoni.

b". Tail up to 20 inches. Either four or five pairs of black lines on each feather of the upper plumage, these being about equal to the white interspaces G. rufipes.

7// 70 11 / 25 1	
b". Tail up to 25 inches. Ear-coverts and adjacent	
parts of the sides of the neck, for a space of	(1
about 2 inches, pure white	G. jonesi.
b'. Upper plumage black, vermiculated transversely	
with white, each feather marked with a sub-	
terminal pale blue band and a white fringe	G. nisbetti.
. Legs brown, horn-coloured, flesh-coloured, or	
greenish, never red.	
c'. Rump-feathers not fringed with white.	
c''. Whole upper plumage uniformly and more or	
less transversely vermiculated with fine close	
black and white lines	G. lineatus.
d". Whole upper plumage marked with black	
and white lines, which run parallel to the	
margins of the feathers, each pair forming	
a spoon-shaped figure	G. sharpii.
d'. Rump-feathers fringed with white.	
$e^{\prime\prime}$. Rump-feathers merely fringed, not ver-	
miculated.	
$e^{\prime\prime\prime}$. Mantle and back plain black	G. horsfieldi.
d'''. Mantle and back transversely vermiculated.	G. wiekhami.
f'. Rump-feathers not only fringed, but also	
vermiculated.	
$e^{\prime\prime\prime}$. Mantle and back more or less transversely	
vermiculated.	
a ¹ . Fringe and vermiculation next to it	
almost, if not quite, in contact.	
a ⁵ . Lower plumage streaked with white	G. oatesi.
b ⁵ . Lower plumage entirely black	G. cuvieri.
b4. Fringe and vermiculation next to it	
divided by a black band as broad as the	
fringe	G. williamsi,
f". Mantle and back marked with curved	
lines parallel to the margins of the	
feathers, each pair forming a spoon-	
shaped figure	G. davisoni.

1. Gennæus andersoni.

Euplocamus andersoni Elliot, P. Z. S. 1871, p. 137; id. Monogr. Phasianidæ, ii. pl. xxii. (1870-72); Anderson, Yunnan Exped., Aves, p. 678, pl. liii. (1878).

In my 'Manual' (pt. i. p. 338) I pointed out that Dr. Elliot had described this species in two perfectly irreconcilable ways—the description in the P. Z. S. and the

plate in the Monograph being based on a native drawing sent by Anderson, and the description in the Monograph on a skin also sent by him.

I also pointed out that Anderson had sent to the British Museum the skin of a Pheasant, of which he remarked:—
"On the second expedition of 1875, I procured another male, somewhat younger than the type, but agreeing with it in all essential details, and this specimen is now in the British Museum." Under these circumstances I accepted Anderson's specimen as representing G. andersoni.

The acquisition, however, of a skin of the Pheasant sent by Colonel G. Rippon to the British Museum has now cleared up the matter. This skin agrees exactly with Elliot's description in the P. Z. S., with his plate in the Monograph, and with Anderson's plate of the type specimen. It proves that the specimen sent by Anderson to the British Museum is not one of G. andersoni, as I had supposed it to be, but of a species which Mr. Ogilvie-Grant has rightly considered to be distinct, and has named G. davisoni.

In the male of *G. andersoni* the legs are deep red. The feathers of the upper plumage throughout are black, marked with white bands, which run parallel to the margins of the feathers, and form from two to four spoon-shaped figures on each feather, the black bands being much broader than the white interspaces. The sides of the neck are covered with scale-like markings. The whole lower plumage is black, with the exception of some white streaks on the sides of the breast. The wings and tail are black, obliquely marked with white, the three outer pairs of tail-feathers being almost entirely black. Tail 12 inches; wing nearly 10 inches.

The exact locality from which Anderson's type specimen (a live bird) was brought is not known. The specimen sent by Colonel Rippon was shot on the Kachin Hills, thirty miles east of Bhamo, at a police post called Warar Bum, which is situated at an elevation of 6000 feet, in May. The female of this species is unknown.

2. Gennæus rufipes.

Gennæus andersoni apud Oates, Journ. Bomb. Nat. Hist. Soc. x. p. 112 (1895).

Gennæus rufipes Oates, Manual Game-Birds India, pt. i. p. 363 (1898).

This Pheasant appears to be confined to the Ruby-Mines district and to be abundant round the town of Mogok. In addition to the type specimen, which I myself procured at Mogok, I have examined others from the same neighbourhood, lent me by the Hon. Walter Rothschild.

The male has the legs deep red. The feathers of the upper plumage throughout are white, marked with four or five black lines, which run parallel to the margins of the webs and form spoon-shaped figures on each feather, the black and white bands being about equal in width. The sides of the head and neck are covered with scale-like markings. The wings and tail are black, obliquely banded with white, the inner webs of the middle pair of tail-feathers being almost entirely white. The lower plumage is deep black, with some white streaks on the sides of the breast. The tail in adults reaches a length of 20 inches. The wing measures 10.5 inches.

The female, for a specimen of which I am indebted to Mr. Rothschild, has the legs deep red, the upper plumage and wings umber-brown with paler margins, the outer webs of the primaries mottled with pale brown. The lower plumage is dark umber-brown, each feather having two or three large irregular and somewhat V-shaped ochraceous bands. The tail is irregularly and obliquely banded with rufous, ochraceous, and black. Length of tail 10 inches, of wing 9 inches.

The females in this species and the next are of the same type, but in the female of G. jonesi the lower plumage is black and the V-shaped marks are white.

3. Gennæus Jonesi, sp. nov.

Gennæus nycthemerus apud Ogilvie-Grant, Ibis, 1900, p. 606.

I have much pleasure in naming this handsome species ser, VIII.—VOL. III.

after my friend Major Henry Jones, who has greatly assisted me in studying and discriminating the various forms of Silver-Pheasants.

This species is found in the Shan States and Yunnan. The Natural History Museum now possesses a large series. The type specimen was sent to me by Capt. J. H. Whitehead, who shot it at a place twenty miles east of Kengtung (N. lat. 21° 30' and E. long. 99° 45'). He remarks that it is not uncommon on the hill-ranges between the Salween and Mekong Rivers. Colonel Rippon has sent five specimens that he procured at an elevation of 5000-7000 feet on Loi-Mai, a mountain situated in N. lat. 20° 30' and E. long. 97° 30′. He has also sent three skins obtained by Mr. H. N. Thompson at Trans-Salween Moukmai, which is approximately in N. lat. 20° and E. long. 98° 30'. Capt. W. G. Nisbett has recently presented a specimen to the Natural History Museum which he shot at Pansibum, about fortyfive miles east of Bhamo, at an elevation of 7000 feet, while he also notes that this bird occurs at Pumbum, about a hundred and fifty miles north of Bhamo, on the frontier of Yunnan, at an elevation of 7000 feet. Lastly, a Pheasant brought home by Capt. A. W. S. Wingate from Yunnan, south-cast of Bhamo, is referable to this species.

The male resembles that of *G. nycthemerus*, but differs in the following respects:—The primaries are black, marked with diagonal zigzag white bands, which are narrower than the intervening black spaces. The secondaries are diagonally banded with black and white in about equal proportions. The inner webs and the terminal half of the outer webs of the middle pair of tail-feathers are plain white, with the exception of a few black specks under the coverts; the basal half of the outer web is marked with narrow wavy black lines, nearly parallel to the shaft. The bands on the upper plumage are much heavier, being of about the thickness of a stout hair-pin.

In the male of G. nycthemerus the first primary is white, marked on the inner web with three broad firm black lines

parallel to the shaft. The black marks on the other primaries are oblique and broken, and occupy only one-third of the feather, the remaining two-thirds being white. On the secondaries the black markings occupy only one-quarter of the feather, the remaining three-quarters being white. The two middle tail-feathers are entirely white, with the exception of a few narrow black bars under the coverts. The bands on the upper plumage are much finer, being of about the thickness of a small pin.

The females of the two species are totally different. In G. jonesi each feather of the lower plumage is black and has a spearhead-shaped white shaft-streak and a submarginal, somewhat V-shaped, white band near to, and following, the margin of the web. The tail-feather's are banded with coarse oblique bars of black, brown, and pale buff.

In G. nycthemerus the whole plumage of the female, both above and below, is umber-brown with pale shafts to the feathers; there are none of the conspicuous white marks on the lower plumage which are to be found in G. jonesi. The tail-feathers are finely vermiculated, not banded, with black, brown, and white.

A fine male of *G. jonesi* measures 40 inches in length; wing 11.5 inches; tail 25 inches. The legs are bright red; the skin of the face is scarlet; the irides are hazel and the bill is of a greenish colour.

A female measures about 25 inches in length; wing 10 inches; tail 11 inches.

4. Gennæus nisbetti, sp. nov.

It is not always safe to describe a new species from an incomplete skin, but in this particular instance a specimen of a Silver-Pheasant, consisting of the skin of the back and rump, the wings, tail, and feet, sent by Capt. W. G. Nisbett, indicates a species totally different from any known to me.

This bird, a male, was procured in the Kachin Hills, five miles east of Sadon, at an elevation of 2500 feet. Sadon is a police-post close to the Chinese frontier and some forty

miles east of Myitkyina. I name this species after its dis-

coverer, Capt. Nisbett.

The characters which render this species so distinct are the deep red legs and the white-fringed plumage of the back and rump. The feathers of these parts are black, finely and transversely vermiculated with from eight to ten fine zigzag white lines, the lowest vermiculation being separated from the white fringe by a beautiful pale blue band. The wings are black vermiculated with white. The four outer pairs of tail-feathers are almost entirely black; the others are black diagonally vermiculated with white, the inner web of the central pair being mostly white.

The irides are hazel; the soft skin of the face is scarlet; the bill yellowish. The specimen has the tail 14 inches in

length; the wing 10 inches; the tarsus 3.3 inches.

5. Gennæus lineatus.

Phasianus lineatus Vigors, P. Z. S. 1831, p. 24.

Euplocamus lineatus Elliot, Monogr. Phasianidæ, ii. pl. xxiii. (1870–72); Hume & Oates, Stray Feathers, iii. p. 165 (1875); Hume & Marshall, Game-Birds India, i. p. 206 (1878).

Gennæus lineatus Ogilvie-Grant, Cat. Birds B. M. xxii. p. 304 (1893); Oates, Manual Game-Birds India, i. p. 351 (1898); Blanford, Fauna Brit. India, Birds, iv. p. 92 (1898).

This well-known Pheasant occurs throughout the country east of the Irrawaddy River from the coast-line to a little above Mandalay. To the east this species is found in Northern Tenasserim and in the lower hills which divide Burma from the Shan States up to the Fort-Stedman road. I have recently seen a specimen in Colonel Bingham's collection which was shot by Mr. H. N. Thompson at Trans-Salween Moukmai (N. lat. 20° and E. long. 98° 30′) at an elevation of 2000 feet. This Pheasant does not appear to occur higher.

The male may be recognised by its upper plumage, the whole of which is very densely and more or less transversely vermiculated with black and white, without a trace of fringes.

The legs are brown and the lower plumage is black streaked with white.

The female is of an umber-brown colour strongly tinged with rufous. On the back of the neck and on the mantle are numerous arrowhead-shaped white marks, while the lower plumage is streaked with white, the streaks being not more than one-sixth of an inch wide. Wing about 8.5 inches in length; tail about 7.5 inches.

6. Gennæus sharpii.

Euplocamus crawfurdi apud Hume & Davison, Stray Feathers, vi. p. 437 (1878); Hume & Marshall, Game-Birds India, i. p. 204 (1878).

Gennæus andersoni Ogilvic-Grant, Cat. Birds B. M. xxii. p. 306 (1893).

Gennæus sharpii Oates, Manual Game-Birds India, pt. i. p. 357 (1898).

This species has a range which extends for fully four hundred miles from north to south. Davison procured it near Papun in Northern Tenasserim, Colonel Wardlaw Ramsay in Karennee. Colonel G. Rippon has lately sent to the Natural History Museum a male shot on Loi-Mai Mountain (N. lat. 20° 30′, E. long. 97° 30′) at an elevation of 6000 feet. Colonel Bingham has quite recently shown me a skin procured by Mr. H. N. Thompson at Kengtung, and Mr. Walter Rothschild has kindly sent me for inspection a fine male obtained at Mogok, in the Ruby-Mines district.

The male of this species requires no separate description, inasmuch as it very closely resembles that of *G. rufipes*. It differs in having the legs flesh-coloured, not red; in having the tail very much shorter, not exceeding 14 inches in length; and in having the inner webs of the primaries mottled, not barred, with white. Wing about 10 inches in length.

The female, however, is of quite a different type to that of G. rufipes, and closely resembles the female of G. lineatus, from which it differs merely in being larger, in having the

streaks on the lower plumage in adults much wider (about a quarter of an inch wide); and in having the inner quills narrowly and obliquely barred with buff. Wing about 9 inches in length; tail 9.5 inches.

The male of G. beli (Oustalet, Bull. Mus. d'Hist. Nat. 1898, p. 258) appears to resemble the male of G. sharpii, but to have red legs. The females of the two species probably differ in a conspicuous manner.

7. Gennæus horsfieldi.

Gallophusis horsfieldi Gray, Gen. Birds, iii. p. 498, pl. exxvi. (1845).

Euplocamus horsfieldi Elliot, Monogr. Phasianidæ, ii. pl. xx. (1870-72); Hume & Marshall, Game-Birds India, i. p. 197 (1878).

Gennæus horsfieldi Ogilvie-Grant, Cat. Birds B. M. xxii. p. 302 (1893); Oates, Manual Game-Birds India, pt. i. p. 334 (1898); Blanf. Fauna Brit. India, Birds, iv. p. 92 (1898).

This Pheasant inhabits a wide area, being found from Bhutan and Assam down to Chittagong, Manipur, and Upper Burma. I procured it at Bhamo and near Katha, and Capt. W. G. Nisbett has sent specimens from the Namli River, near Sadon, east of Myitkyina. These places probably indicate the line of its southern and eastern limits. It appears to occur up to an elevation not exceeding 4000 feet.

The whole plumage is black, with a bluish gloss at the tips of the feathers. Those of the rump and upper tail-coverts are conspicuously fringed with white, and there are no vermiculated lines on any part of the plumage. The fringes in some specimens are very narrow, in others very broad, but the reason of this is not apparent. The legs seem to vary considerably in colour, being dirty white, greenish, or some shade of brown.

8. Gennæus Wickhami.

Gennæus wickhami Oates, Manual Game-Birds India, pt. ii. p. 495 (1899).

The type specimen of this species was sent to me by

Mr. P. F. Wickham, who procured it at Minken, about ten miles south of Falam, in the Chin Hills, at an elevation of some 5000 feet. This locality is in about 23° N. lat. and 94° E. long.

The male bird (the female is unknown) has the legs brown and the whole lower plumage deep black. The mantle, back, scapulars, and wing-coverts are black, finely but irregularly vermiculated and speckled with pale buff, while the feathers of the rump and upper tail-coverts are plain black, broadly fringed with white. Wing 9.5 inches; tail 11 inches.

9. Gennæus oatesi.

Gennæus ontesi Ogilvie-Grant, Cat. Birds B. M. xxii. p. 303 (1893).

The type of this species, a unique specimen, has the lower plumage of *G. lineatus* and the entire upper plumage finely vermiculated with black and white, the feathers of the rump and upper tail-coverts being fringed with white.

This specimen came to the British Museum from the Zoological Society of London, and is said to have been sent from Arrakan by Capt. Bogle.

When writing my 'Manual,' I carelessly omitted to notice this type, and described in its place two Silver-Pheasants that my collectors had obtained in the Arrakan Hills, which must be assigned to *G. cuvieri*. My article on *G. oatesi* in the 'Manual' (pt. i. p. 348) must therefore be cancelled and the present note substituted for it.

10. Gennæus cuvieri.

Lophophorus cuvieri Temm. Pl. Col. v. pl. 10 [no. 1] (1820).

Euplocamus cuvieri Hume & Oates, Stray Feathers, iii. p. 166 (footnote, 1875); Hume & Marshall, Game-Birds India, i. p. 201 (1878).

Gennœus cuvieri Ogilvie-Grant, Cat. Birds B. M. xxii. p. 303 (1893).

I wrote on this species with much doubt in my 'Manual,' and I am now fully convinced that the Pheasants that my

collectors procured in the Arrakan Hills, which Mr. Ogilvic-Grant assigned to *G. oatesi*, were correctly identified with *G. cuvieri* by Mr. Hume when we wrote our joint account of the birds of Pegu in 1875. Consequently my article on *G. cuvieri* in the 'Manual' (pt. i. p. 345) must be cancelled.

Besides the two specimens above referred to, which were shot on the Arrakan Hills in the latitude of Prome, there is a third example of this species in the Natural History Museum without any particular history, except that it is said to have come from Arrakan.

The male has the whole upper plumage black, transversely vermiculated with white. The rump-feathers are rather narrowly fringed with white, the vermiculation next the fringe being so near to it as almost, if not quite, to touch it. The lower plumage is black throughout. The wings and tail are black, more or less barred with white.

The female has the whole body-plumage of a rich umberbrown, the upper parts freekled with blackish brown, the breast-feathers marked with yellowish shaft-streaks. The middle three pairs of tail-feathers are pale chestnut, closely and obliquely barred with black; the others are deep chestnut mottled with black, chiefly on the inner web.

11. GENNÆUS WILLIAMSI.

Gennæus williamsi Oates, Manual Game-Birds India, pt. i. p. 342 (1898).

Gennæus turneri Finn, Journ. Asiat. Soc. Beng. lxix. pt. ii. p. 146 (1901).

This species has a wide range. The type specimens were shot by Capt. F. T. Williams at Kalewa, on the Chindwin River. Mr. Finn's types were procured about twelve miles south of the same place. Captain W. G. Nisbett has recently sent me some examples from Upper Burma, namely, two males from Moukkadoung Hill, 3000-4000 feet, in the Upper Chindwin district; one male from Pinlabu; one from Kyatthin; and another from Wela—the last three localities being all in the Wuntho district. Mr. P. F. Wickham has also sent me a male bird from Yaw, in the Pakokku district.

This bird may therefore be said to inhabit the tract of country lying between the Chin Hills and the Irrawaddy River and between the 21st and 24th degrees of north latitude.

A male and female of this species are in the British Museum, catalogued under the name of G. cuvieri. They were sent, probably alive, to the Zoological Society of London by Capt. Bogle many years ago, and are said to have been taken in Arrakan. The locality requires confirmation.

The male has the whole upper plumage black, rather coarsely vermiculated with pale buff in younger birds, finely and sparingly with white in older birds. The feathers of the rump are very broadly fringed with white, the black space between the first vermiculation and the fringe being as broad as the latter. The inner webs of the primaries are almost plain black in old birds, vermiculated with buff in those that are younger. The tail-feathers are black, marked with narrow oblique lines of pale buff, the three outer pairs being almost entirely black. The lower plumage is wholly black. Tail about 10 inches in length.

The female has the general colour of the upper plumage umber-brown, minutely freekled with black. The lower plumage is brown, each feather edged with greyish white and with a conspicuous greyish white shaft-streak. The two middle tail-feathers are chestnut, mottled with black; the others are black obliquely barred with white, the outermost becoming almost entirely black. Tail about 8 inches in length.

12. Gennæus davisoni.

Gennœus davisoni Ogilvie-Grant, Cat. Birds B. M. xxii. p. 304 (1893).

Gennæus andersoni (Elliot); Oates, Manual Game-Birds India, pt. i. p. 337 (1898).

The type specimen of this species was sent to the British Museum by the late Dr. John Anderson, and I have already explained the reasons which led me to treat it as a specimen of G. andersoni and to suppress the name G. davisoni.

By the acquisition of an undoubted specimen of G. ander-

soni, sent by Colonel G. Rippon, the specific distinctness of G. davisoni has been fully established.

The type specimen was procured to the north-east of Bhamo, and we know nothing more about the distribution of this species. The female is unknown.

The male has the hind-neck, mantle, back, wing-coverts, and scapulars black, each feather rather finely marked with zigzag white lines parallel to the margins of the webs, and each pair of such lines forming a spoon-shaped pattern. The rump and upper tail-coverts are black, with more or less transverse zigzag vermiculations, while each feather is fringed with white, the first vermiculation and the white fringe being separated by a black band. The lower plumage is entirely black. The middle tail-feathers are black, with white lines parallel to the shaft; the three outer pairs are almost entirely black, and the intermediate pairs are progressively less marked with white lines than the middle feathers. The wings are black obliquely barred with white. The wing measures 9.5 inches; the tail about 11 inches.

X.—On the Genera Xenerpestes and Metopothrix. By Hans, Graf von Berlepsch.

I. XENERPESTES.

In a third article on the birds collected by Mr. J. Stolzmann in Ecuador, published in the 'Proceedings of the Zoological Society' for 1885, the late Dr. L. Taczanowski, in concert with me, has described and figured a curious bird under the name of Synallaxis singularis *.

Unfortunately my friend Taczanowski did not at that time send me the bird itself for examination, but merely a description of it, from which I satisfied myself that it belonged to an undescribed species quite unknown to me. Taczanowski placed it in the genus *Synallaxis*, admitting at the same time that it was an abnormal species of that genus.

Through the kindness of Mr. Stolzmann, I have lately

^{*} Tacz. & Berl. P. Z. S. 1885, p. 96, pl. vii. fig. 2.